Spider Tie "Wet"

Pool installation instructions

Building a swimming pool may seem to be an overwhelming project. But it doesn't have to be. Like any building project, it's just several very simple steps done in the right order. After watching our step by step instructional video, reading and following our step by step written instructions with illustrated drawings, you should have enough information to successfully build a beautiful in ground swimming pool. Be sure to review all the instructional information before starting your project. **(Please read disclaimer at the end of these instructions)**

Since the Spider Tie "Wet" pool wall system is built out of concrete, installed correctly you can expect a life span that is more than double that of most steel and polymer wall systems.

Step 1

Planning

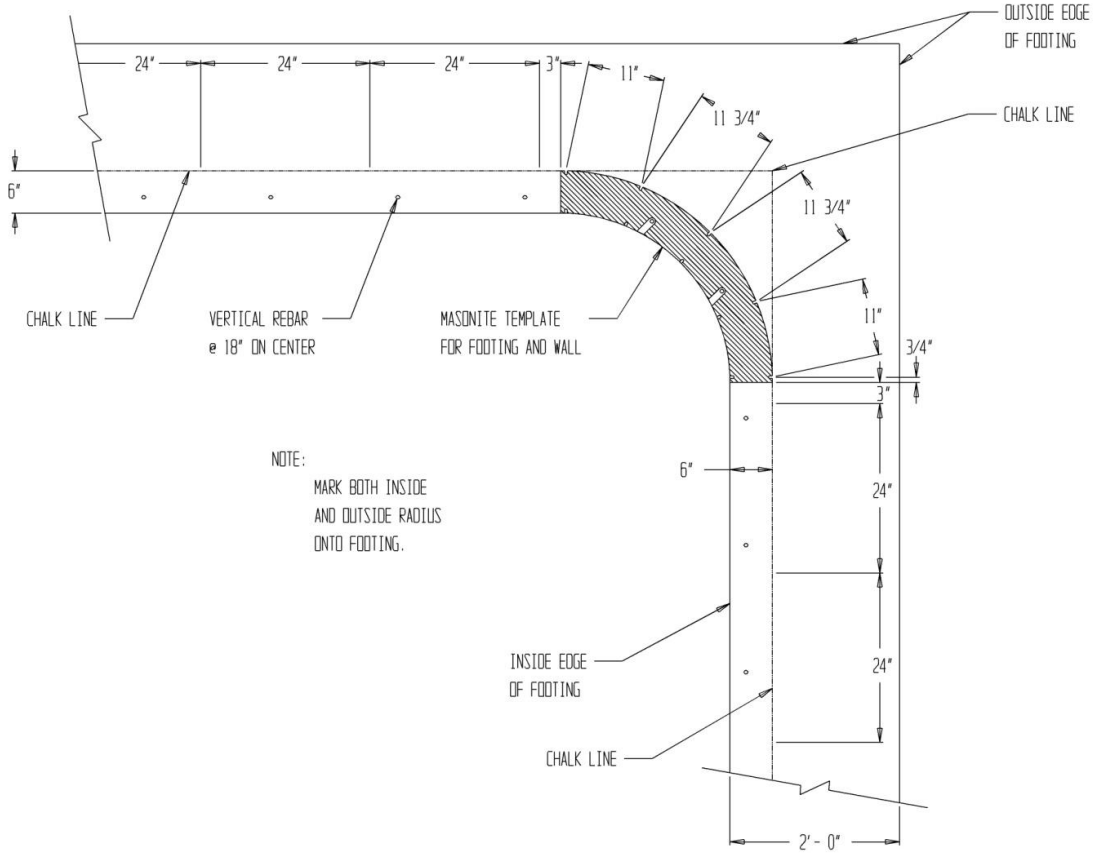
Establish where you want the height or finished elevation for your pool deck to be. Make sure that all water runoff drains away from the pool and away from your house or any other buildings. Once that is established, mark out the location of the pool in the yard. Choose a sunny area avoiding underground and overhead wires, pipes and septic systems.

For patios, locate in an area where downspouts from your house or other buildings will not interfere with pool or new patio

Locate filter equipment as close to pool as possible keeping in mind the necessary electrical and backflow plumbing.

There are 2 parts to the Spider Tie “Wet” system- the “Starter Tie” and the “Spider Tie”. The Starter Tie allows you to fasten the system to your concrete footing. The Spider Ties function like studs in a wall, creating a framework for you to fasten your plywood to. The spider tie system also holds the horizontal rebar in place.

To begin with measure out 6” (or 8” if you are using the 8” system) from the inside edge of the footing and make a mark at each end of all straight sections of your footing. Using a chalk line snap a straight line between marks. You will be using this line for your lay out. Using the Masonite template for radius corners that came with your kit, lay the template on the footing at the radius locations and mark the outside and inside curve onto the footing. Both ends of the template should connect to the straight chalk lines of the straight sections. You will notice that there are 5 small notches on the inside and outside edge of the template (the 2 large notches are for proper vertical rebar placement during the footing phase of the project). Make a mark on the footing at each one of those notches. This will be the layout for your Starter Ties. (Detail 1)



Detail 1

If your pools design has a fiberglass step system you must first place your steps in the proper location before continuing.

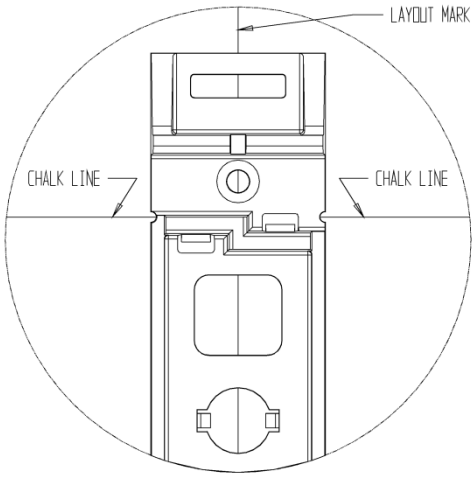
For all straight sections start by making a mark 3”in from the end followed by making a mark every 2 feet until you come to the other end. Then finish your lay out with a mark 3” back from that end. You should not have any spacing greater than 2’.

The spacing of the Starter Ties for the radius is much closer. This is necessary to hold the thinner material to the curved shape of the wall.

Spider Ties and rebar installation

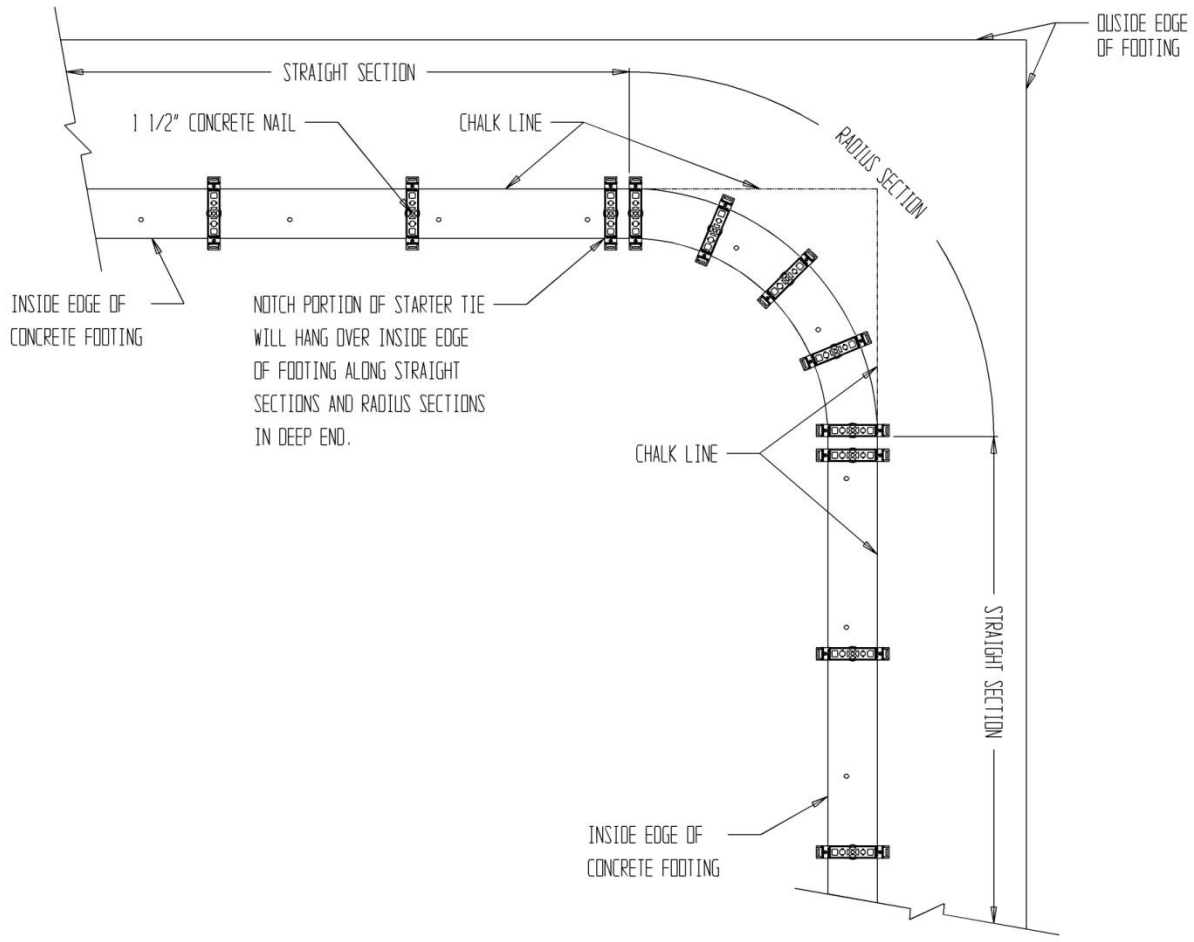
A 42” tall wall requires either 3 - #4 (1/2”) or 6 - #3 (3/8”) horizontal rebar spaced evenly apart and running continuously through the wall. You need to decide which type of rebar you plan to use. The erection of the Spider Tie frame and the installation of the rebar alternate back and forth until you have reached your desired height.

Start by nailing your starter ties to the concrete footing. You will notice a notch on the sides of the Starter Ties near each end and on both sides. Line this notch up with the calk line referencing the outside perimeter of the finished wall. Center the Starter Ties to your lay out marks. The starter Tie should be perpendicular to your calk line. (Detail 2A)



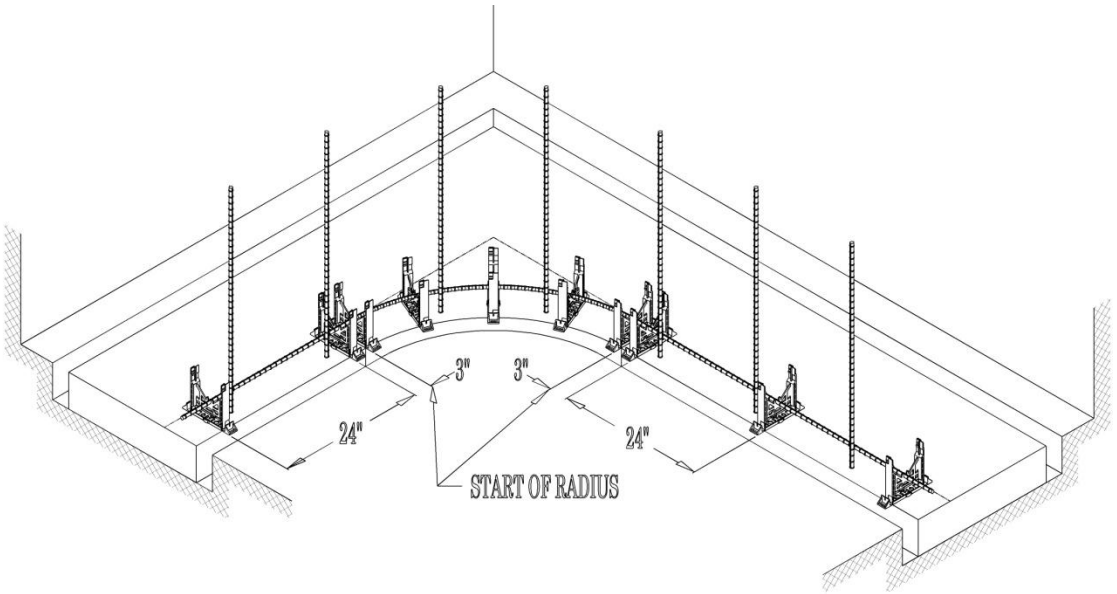
Detail 2A

The Starter Tie will be hanging over the inside edge of the concrete footing. Continue until all lay out marks have a Starter Tie. There are different ways to nail the Starter Tie down. If the concrete is new, most likely it will be easier to hand nail by using a 1”- 1 ½” concrete nail. Use the center hole in the Starter Tie for a nailing location. If the concrete is older or harder then it will be necessary to use a powder actuated tool or gun to nail the Starter Ties down to the footing .(Detail 2B)



Detail 2B

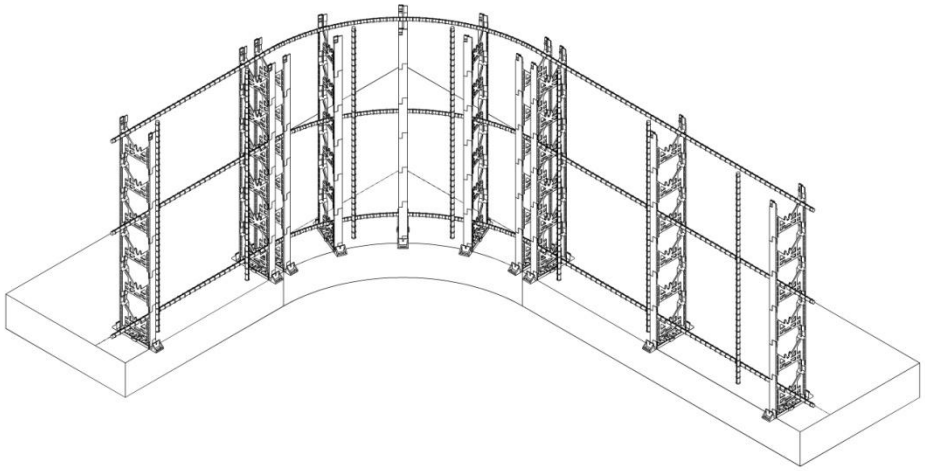
Once all the Starter Ties are fastened to the concrete footing proceed by snapping 1 - Spider Tie onto each of the Starter Ties. After that is complete install the first row of rebar into the center slot of the Spider Tie. (Detail 2C)



Detail 2C

Most codes require a minimum of 18” overlap on all rebar. At this time if your vertical rebar are not long enough to reach within 3” of the top of the wall, tie an additional piece of rebar to the existing bar to achieve the proper length keeping in mind the 18” overlap. Continue to build up the Spider Tie stacks and installing your horizontal rebar as you go. (Detail 2D) (These details show using ½” or #4 rebar)

Note: Refer to your building agencies bonding requirements for you rebar. Most agencies require all rebar to be bonded together with tie wire. The footings, walls and pool deck should be bonded together with a code approved bonding system.



Detail 2D

Note: Do not build the stacks taller than your next row of rebar

For 42” tall walls your Spider Tie stacks only need to be 6 Ties high

For 48” tall walls your Spider Tie stacks only need to be 7 Ties high

Installing plywood

You are now ready to begin installing the plywood forms. For 6”Spider Tie system 5/8” OSB will work for walls 48” tall.

Note: When using 5/8” OSB or CDX it must be NEW and kept DRY prior to pouring concrete to work at its optimum, otherwise rated a “form ply” is always recommended.

Start installing the plywood on all straight sections first. Loose fit the plywood on both sides of the wall at the same time. This will require more than one person in order to do this. Do not fasten with screws right away rather use a Starter Tie at the top to temporarily hold the two sides in place. Do this by turning the Starter Tie upside down and clipping it to the top edge of the plywood. You only need one or two Starter Ties to hold each section together. Avoid having the ends of the plywood center on a Spider Tie stack. It will be much easier and stronger if the ends meet somewhere in between the stacks. Continue loose fitting all the straight wall sections. Be sure to be accurate when cutting the plywood sections to length. Do not allow the plywood of the straight sections to intrude into the radius sections.

Once all the straight sections have been fitted you may begin in a systematic order installing the screws through the plywood and into the Spider Tie stacks.

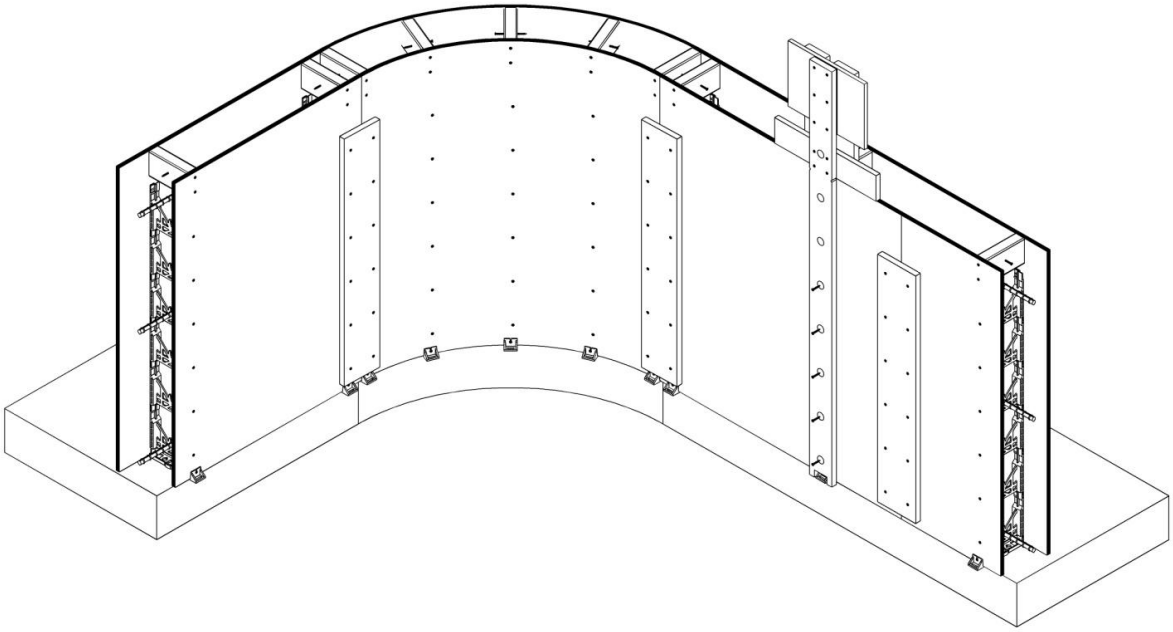
Step 12

Fastening plywood

It is always recommended to use an Alignment Tool to do this. The Alignment Tool ensures proper screw placement and shortens the labor process by as much as half. Your alignment tool will come ready to use with most ½” plywood. If the Alignment Tool does not easily slide into position, you will need to install the

spacing shims that come with the tool. Carefully remove the Hole Board from the Head Piece. Place the necessary number of shims between the Hole Board and the Head Piece. Be sure that when you reattach the Hole Board that it is properly aligned with the Interior Alignment Boards. Test the alignment tool. It should slide freely onto the Spider Tie stack. If it still is to tight add another shim.

Begin by sliding the alignment tool over the top edge of the plywood and down and over the first Spider Tie stack. The “Hole board” goes over the outside of the plywood. Look inside the first few times to make sure that the tool is properly positioned. (Detail 3A)



Detail 3A

Starting at the top 1st or 2nd hole using a cordless impact driver, drive a #10 - 1 ½” coarse thread screw until it begins to counter sink. Do not over tighten, risking stripping the screw. Repeat the process for each hole. Do not skip any holes. At the bottom there is a notch in the Starter Tie. Complete the row by placing a screw in that notch. Repeat this process for all Spider Tie stacks on both sides of the wall.

Radius Corners

Cut a small strip of Masonite approximately 3” wide and 60” long. Place this strip into the starter Ties of the radius corners. But one end strip against the edge of

straight plywood section, bend into shape and make a mark where the strip meets the edge of the straight plywood section at the other end. This will give you the dimension or length you need to cut the first piece of Masonite. Repeat process for each layer and each side. Loose fit using Starter ties to hold forms together.

Note: 2 layers of 1/4" Masonite per side for 4' radius, 3-4 layers of 1/8"Masonite per side for 2' radius.

Attach with screws using the same process mentioned before.